

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Previously Presented) A method of recording a data stream including multi-path stream sections in a recording medium, comprising:

grouping the multi-path stream sections of the recorded data stream into a single stream object; and

providing a mapping list for accessing the multi-path stream sections in the single stream object,

wherein the mapping list includes:

time entry information for identifying a position of each multi-path stream section, said time entry information for a respective multi-path stream section including a cumulative sum of time lengths of preceding multi-path sections having a same path as the respective multi-path section.

2. (Previously Presented) The method set forth in claim 1, wherein the time entry information further includes location information indicating each boundary position between multi-path stream sections of different paths.

3. (Previously Presented) The method set forth in claim 2, wherein said time entry information further contains information notifying whether or not a corresponding data stream interval includes multi-path stream sections.

4. (Previously Presented) The method set forth in claim 3, wherein said time entry information further contains a path number if the corresponding data

stream interval includes the multi-path stream sections.

5. (Previously Presented) The method set forth in claim 3, wherein said location information is an index number of a start stream object unit among stream object units constituting the data stream interval associated with said time entry.

6. (Previously Presented) A method of recording a data stream including multi-path stream sections in a recording medium, comprising:

grouping and recording the multi-path stream sections of the data stream into a single stream object; and

creating and recording time entries, each time entry having information on an accumulated size and time length of a preceding data stream section before a data stream interval each time entry covers.

7. (Previously Presented) The method set forth in claim 6, wherein the time length of a part of the preceding data stream section is summed in said accumulated time length information of each time entry, if path numbers of the part of preceding data stream section and corresponding data stream interval are the same, whereas the size of the preceding data stream section is summed in said accumulated size information of each time entry even if the path numbers are not the same.

8. (Canceled).

9. (Previously Presented) A method of searching a data stream including multi-path stream sections recorded in a recording medium, comprising:

- (a) searching for a time entry whose accumulated time length is closest to a target value when a searching operation is requested;
- (b) checking whether a path information written in the time entry found in said step (a) is equal to an entered path number; and
- (c) searching for a location of a recorded data stream pointed to by an accumulated size information written in the found time entry, based on the checked result.

10. (Previously Presented) The method set forth in claim 9, further comprising reproducing the recorded data stream from the location found in said step (c), and determining where in the reproduced data stream is an exact position of the target value.

11. (Previously Presented) The method set forth in claim 9, wherein said step (c) searches for the location of the recorded data stream pointed to by the accumulated size information with reference to a location information written in the found time entry.

12. (Previously Presented) The method set forth in claim 11, wherein said location information is an index number of a stream object unit a corresponding time entry covers.

13. (Previously Presented) The method set forth in claim 9, wherein said step (a) searches for a time entry whose accumulated time length is smaller than and closest to the target value.

14. (Previously Presented) A method of searching data stream including multi-path stream sections recorded in a recording medium, comprising:

(a) summing up an incremental time length and incremental size written in each time entry for a respective multipath stream section;

(b) determining a time entry whose incremental time length makes the summed time length closest to a target value;

(c) checking whether a path information written in the determined time entry is equal to an entered path number; and

(d) searching for a location of the recorded data stream close to a position of the target value, based on the checked result.

15. (Original) The method set forth in claim 14, wherein said step (d) searches for the location of recorded data stream with reference to a location information written in the determined time entry and the summed time length subtracted by the incremental size of the determined time entry.

16. (Original) The method set forth in claim 15, wherein said location information is an index number of a stream object unit constituting the recorded data stream.

17. (Previously Presented) The method set forth in claim 14, further comprising reproducing the recorded data stream from the location found in said step (d), and determining where in the reproduced data stream is an exact position of the target value.

18. (Original) The method set forth in claim 14, wherein said step (b) determines a time entry whose incremental time length makes the summed time length become larger than the target value.

19. (Previously Presented) The method set forth in claim 14, wherein said step (a) sums the incremental time length of each time entry whose path information is the same if the time entry is for a multi-path data stream, and sums the incremental sizes of all preceding time entries irrespective of path information.

20. (Currently Amended) A recording medium containing recorded data to be reproduced by a video player, said recording medium comprising:

a number of stream object units constituting a data stream, wherein multi-path stream section sections of the data stream is are grouped into a single stream object; and

a mapping list for accessing the multi-path stream sections in the single stream object, said mapping list including time entry information for identifying a position of each multi-path stream section, said time entry information for a respective multi-path stream section including a cumulative sum of time lengths of preceding multi-path sections having a same path as the respective multi-path section, said video player using the mapping list for accessing the multi-path stream sections.

21. (Previously Presented) The recording medium set forth in claim 20, wherein said time entry information further contains path identifying data and information notifying whether or not a corresponding data stream interval each time

entry information covers includes the multi-path stream sections.

22. (Previously Presented) The recording medium set forth in claim 20, wherein said time entry contains accumulated time length and size of a preceding data stream before a data stream interval said time entry covers.

23. (Previously Presented) The recording medium set forth in claim 20, wherein said time entry contains an incremental time length and size of a data stream interval said time entry covers.